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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/911,087	07/24/2001	Christopher D. Ruppel	DP-303443	4010

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EXAMINER	
TRINH, TAN H	

ART UNIT	PAPER NUMBER
2684	

DATE MAILED: 07/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/911,087	RUPPEL ET AL.	
	Examiner	Art Unit	
	Tan H. Trinh	2684	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 May 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This Office Action is in response to Amendment filed on date: 05/09/2005.

Claims 1-26 are still pending.

Response to Arguments

2. Applicant's arguments, see remarks, filed on 05/09/2005, with respect to the rejection(s)of claim(s) 1-26 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5, 8, 10-14, 17, 19, 20 and 23-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Takeuchi (US-4,459,667).

Regarding claim 1, Takeuchi discloses a method for improving signal processing of a mobile receiver located in a vehicle in the presence of multipath distortion (fig. 8 and its description), the method comprising the steps of:

determining a speed of the vehicle (col. 11, lines 5-48);

collecting signal information on a selected received signal that is received by the mobile receiver (fig. 8 and its description), the collected signal information providing an indication of the quality of the received signal (col. 10, lines 40-56), wherein the collected signal information is provided by a signal quality circuit (fig. 8, position calculation units 7 and 11); and

modifying at least one time constant associated with processing of the collected signal information responsive to the determined speed (col. 12, lines 20-28 and col. 13, lines 49-67; for more details see cols. 9-14).

Regarding claim 2, Takeuchi discloses the method of claim 1, wherein the speed of the vehicle is provided by a vehicle sensor (fig. 8, speed sensor 6).

Regarding claim 3, Takeuchi discloses the method of claim 1, wherein the speed of the vehicle is determined from position locations provided by a ground positioning system (GPS) receiver (col. 12, lines 6-55).

Regarding claim 4, Takeuchi discloses the method of claim 1, wherein the at least one time constant includes an attack time (related to k1) and a decay time (related to k2) of the signal quality circuit (cols. 9-14).

Regarding claim 5, Takeuchi discloses the method of claim 1, wherein a length of

the at least one time constant is inversely proportional to the speed of the vehicle (see formula in col. 13, line 40).

Regarding claim 8, Takeuchi discloses the method of claim 1, wherein the signal quality circuit that includes at least one of an average detector, a peak detector and a full-wave detector (fig. 8, speed detection unit 13).

Regarding claim 10, Takeuchi discloses a mobile receiver that exhibits improved signal processing in the presence of multipath distortion (fig. 8 and its description), the mobile receiver being located within a vehicle, the mobile receiver comprising:

a tuner module (fig. 8, selector 8);

a signal quality circuit (fig. 8, position calculation units 7 and 11) coupled to the tuner module;

a memory (fig. 8, memory 16) subsystem for storing information; and

a processor ("microcomputer" see cols. 7-9) coupled to the memory subsystem and the signal quality circuit, the processor executing code for causing the processor to perform the steps of:

determining a speed of the vehicle (col. 11, lines 5-48);

collecting signal information on a selected signal received by the mobile receiver (fig. 8 and its description), wherein the collected signal information is provided by the signal quality circuit and provides an indication of the quality of the received signal (col. 10, lines 40-56); and

modifying at least one time constant associated with processing of the collected signal information responsive to the determined speed (col. 12, lines 20-28 and col. 13, lines 49-67; for more details see cols. 9-14).

Regarding claim 11, Takeuchi discloses the receiver of claim 10, wherein the processor is coupled to a vehicle sensor (fig. 8, speed sensor 6) that provides the speed of the vehicle (fig. 8 and its description).

Regarding claim 12, Takeuchi discloses the receiver of claim 10, wherein the processor is coupled to a ground positioning system (GPS) receiver that provides vehicle locations from which the speed of the vehicle is determined (col. 12, lines 6-55).

Regarding claim 13, Takeuchi discloses the receiver of claim 10, wherein the at least one time constant includes an attack time (related to k1) and a decay time (related to k2) of the signal quality circuit (fig. 8 and its description).

Regarding claim 14, Takeuchi discloses the receiver of claim 10, wherein a length of the at least one time constant is inversely proportional to the speed of the vehicle (see formula in col. 13, line 40).

Regarding claim 17, Takeuchi discloses the receiver of claim 10, wherein the

signal quality circuit includes at least one of an average detector, a peak detector and a full-wave detector (fig. 8, speed detection unit 13).

Regarding claim 19, Takeuchi discloses an automotive subsystem that includes a mobile receiver that exhibits improved signal processing in the presence of multipath distortion, the mobile receiver being located within a motor vehicle (fig. 8 and its description), the mobile receiver comprising:

a tuner module (fig. 8, selector 8);

a signal quality circuit (fig. 8, position calculation units 7 and 11) coupled to the tuner module;

a memory (fig. 8, memory 16) subsystem for storing information;

at least one of a vehicle sensor (fig. 8, speed sensor 6) and a ground positioning system (GPS) receiver for providing an indication of the speed of the vehicle (col. 12, lines 6-55); and

a processor ("microcomputer" see cols. 7-9) coupled to the memory subsystem, the signal quality circuit and the at least one of a vehicle sensor (fig. 8, speed sensor 6) and a ground positioning system (GPS) receiver (fig. 8 and its description), the processor executing code for causing the processor to perform the steps of:

determining a speed of the vehicle (col. 11, lines 5-48);

collecting signal information on a selected signal received by the mobile receiver (fig. 8 and its description), wherein the collected signal information is provided by the

signal quality circuit and provides an indication of the quality of the received signal (col. 10, lines 40-56); and

modifying at least one time constant associated with processing of the collected signal information responsive to the determined speed (col. 12, lines 20-28 and col. 13, lines 49-67; for more details see cols. 9-14).

Regarding claim 20, Takeuchi discloses the subsystem of claim 19, wherein the at least one time constant includes an attack time (related to k1) and a decay time (related to k2) of the signal quality circuit, and wherein a length of the at least one time constant is inversely proportional to the speed of the vehicle (see formula in col. 13, line 40).

Regarding claim 23, Takeuchi discloses a mobile receiver that exhibits improved signal processing in the presence of multipath distortion, the mobile receiver being located within a vehicle (fig. 8 and its description), the mobile receiver comprising:

a tuner module (fig. 8, selector 8);

a signal quality circuit (fig. 8, comparator 12) coupled to the tuner module (fig. 8 and its description); and

a control circuit (fig. 8, comparator 12) coupled to the signal quality circuit, the control circuit performing the steps of:

determining a speed of the vehicle (col. 11, lines 5-48);

collecting signal information on a selected signal received by the mobile receiver (fig. 8 and its description), wherein the collected signal information is provided by the signal quality circuit (fig. 8, position calculation units 7 and 11) and provides an indication of the quality of the received signal (col. 10, lines 40-56); and

modifying at least one time constant associated with processing of the collected signal information responsive to the determined speed (col. 12, lines 20-28 and col. 13, lines 49-67; for more details see cols. 9-14).

Regarding claim 24, Takeuchi discloses the receiver of claim 23, wherein the control circuit is coupled to a vehicle sensor (fig. 8, speed sensor 6) that provides the speed of the vehicle (fig. 8 and its description).

Regarding claim 25, Takeuchi discloses the receiver of claim 23, wherein the control circuit is coupled to a ground positioning system (GPS) receiver that provides vehicle locations from which the speed of the vehicle is determined (col. 12, lines 6-55).

Regarding claim 26, Takeuchi discloses the receiver of claim 23, wherein the at least one time constant includes an attack time (related to k1) and a decay time (related to k1) of the signal quality circuit (fig. 8 and its description).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 6, 15 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeuchi in view of Adachi et al. (US-2002/0055813).

Regarding claims 6, 15 and 21, Takeuchi discloses all the limitations of claims 1, 10 and 19, respectively. But, Takeuchi fails to expressly teach wherein the collected signal information provides an indication of an ultrasonic noise (USN) level associated with the received signal. However in analogous art, Adachi et al. teach wherein the collected signal information provides an indication of an ultrasonic noise (USN) level associated with the received signal [0048]. Since, Takeuchi and Adachi et al. are related to the method for determining the vehicle speed; therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Takeuchi as taught by Adachi et al. for purpose of providing an improved automatic vehicular velocity control apparatus by indicating of an ultrasonic noise (USN) level in order to increase advantageously the accuracy of determing the vehicle speed.

7. Claims 7 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeuchi and Adachi et al. and further in view of Yamanaka et al. (US-3,893,114).

Regarding claims 7 and 16, Takeuchi and Adachi et al. disclose all the limitations of claims 6 and 15, respectively. But, Takeuchi and Adachi et al. fail to expressly teach wherein the collected signal information also provides an indication of a wideband amplitude modulation (WBAM) level associated with the received signal. However in analogous art, Yamanaka et al. teach wherein the collected signal information also provides an indication of a wideband amplitude modulation (WBAM) level associated with the received signal (col. 9); therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Takeuchi as taught by Yamanaka et al. for purpose of providing an improved automatic vehicular velocity control apparatus by indicating of a wideband amplitude modulation (WBAM) level in order to increase advantageously the accuracy of determing the vehicle speed.

8. Claims 9, 18 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeuchi in view of Porambo (US-5,379,449).

Regarding claims 9, 18 and 22, Takeuchi discloses all the limitations of claims 8, 17 and 19, respectively. But, Takeuchi fails to expressly teach wherein at least one output of the at least one of an average detector, a peak detector and a full-wave detector is utilized to initiate at least one of a soft-mute, a high-cut and a stereo noise control function. However in analogous art, Porambo teaches wherein at least one output of the at least one of an average detector, a peak detector and a full-wave detector is utilized to initiate at least one of a soft-mute, a high-cut and a stereo noise control function (col. 3, lines 12-38). Since, Takeuchi and Porambo are related to the

method for determining the vehicle speed; therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Takeuchi as taught by Porambo for purpose of providing an improved automatic vehicular velocity control apparatus by utilizing the high-cut in order to increase advantageously the accuracy of determining the vehicle speed.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tan Trinh whose telephone number is 571-272-7888. The examiner can normally be reached on 8AM-6PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, nay Maung can be reached on 571-272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner: Trinh, Tan H. AU: 2684 Date: 07/21/2005

Nguyen Vo
7-22-2005

NGUYEN T. VO
PRIMARY EXAMINER